

## 111.5 - Rock and Minerals (powder form)

Technical Contact: [robert.vocke@nist.gov](mailto:robert.vocke@nist.gov)

PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

(Concentrations are in mass fractions, in %, unless noted by an asterisk for mg/kg)

SRM	Description	Unit of Issue	Al <sub>2</sub> O <sub>3</sub>	BaO	Be	C	CaO	Cd	Ce	Cl	Cr <sub>2</sub> O <sub>3</sub>	Cs	Dy	Er	Eu	F	Fe <sub>2</sub> O <sub>3</sub> **
1d	Limestone, Argillaceous	70 g	0.526	0.0033	(0.1)*	11.50	52.85	(0.3)*	(4)*	(130)*	0.0012	(0.4)*	(0.6)*	(0.4)*	(0.1)*	(160)*	0.3191
70a	Feldspar, Potash	40 g	17.9	0.02			0.11										0.075
81a	Glass Sand	75 g	0.66								46*						0.082
88b	Dolomitic Limestone	75 g	0.336	CO <sub>2</sub> 46.37			29.95										0.277
99a	Feldspar, Soda	40 g	20.5	0.26			2.14										0.065
165a	Glass Sand (Low Iron)	75 g	0.059								(1*)						0.012
278	Obsidian Rock	35 g	14.15	Ba (1140*)			0.983				Cr (6.1*)						2.04
607	Potassium Feldspar	5 g															
688	Basalt Rock	60 g	17.36				(12.17)				Cr 332*						10.35
1413	Glass Sand (High Alumina)	75 g	9.90	0.12			0.74										0.24

Values in parentheses are given for information only.

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SRM	Description	Unit of Issue	Ga	Gd	Ho	La	MgO	Mn	Nb	Nd	Ni	P <sub>2</sub> O <sub>5</sub>	Pr	K <sub>2</sub> O	Rb <sub>2</sub> O	S	SiO <sub>2</sub>
1d	Limestone, Argillaceous	70 g	(1)*	(0.5)*	(0.1)*	(4)*	0.301	0.0209	(0.7)*	(3)*	(4)*	0.0413	(0.6)*	0.1358	(Rb 6)*	0.1028	4.080
70a	Feldspar, Potash	40 g													11.8	0.06	67.12
81a	Glass Sand	75 g															
88b	Dolomitic Limestone	75 g					21.03	0.0160				0.0044		0.1030			1.13
99a	Feldspar, Soda	40 g						0.02				0.02		5.2			65.2
165a	Glass Sand (Low Iron)	75 g															
278	Obsidian Rock	35 g					(0.23)	MnO 0.052			3.6*	0.036		4.16	Rb 127.5*		73.05
607	Potassium Feldspar	5 g													Rb 523.96*		
688	Basalt Rock	60 g					(8.4)	0.167				0.134		0.187	Rb 1.91*		48.4
1413	Glass Sand (High Alumina)	75 g						0.06						3.94			82.77

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SRM	Description	Unit of Issue	Sm	Sn	Na <sub>2</sub> O	SrO	Tb	Th	TiO <sub>2</sub>	U	V	Y	Yb	ZnO	Ignition	ZrO <sub>2</sub>	Cu	Loss on ignition	
1d	Limestone, Argillaceous	70 g	(0.5)*	(1)*	0.0109	0.0303	(0.09)*	(0.5)*	0.0306	(1)*	(10)*	(5)*	(0.3)*	0.0022	41.57				
70a	Feldspar, Potash	40 g			2.55					0.01					0.40				
81a	Glass Sand	75 g								0.12						0.034			
88b	Dolomitic Limestone	75 g			0.0290	0.0076			(0.016)							(46.98)			
99a	Feldspar, Soda	40 g			6.2					0.007					0.26				
165a	Glass Sand (Low Iron)	75 g								0.011						0.006			
278	Obsidian Rock	35 g			4.84	Sr 63.5*			12.4*	0.245	4.58*							5.9*	
607	Potassium Feldspar	5 g				Sr 65.485*													
688	Basalt Rock	60 g			2.15	Sr 169.2*				1.17									
1413	Glass Sand (High Alumina)	75 g			1.75					0.11									

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